



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/910,358  
Source: OPE  
Date Processed by STIC: 8/1/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

### **Checker Version 3.0**

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:  
<http://www.uspto.gov/web/offices/pac/checker>

**Raw Sequence Listing Error Summary**

| <u>ERROR DETECTED</u>  | <u>SUGGESTED CORRECTION</u>   | <u>SERIAL NUMBER:</u> <i>09/910,358</i> |
|--|---|---|
| <b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHIA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE</b> |   |   |
| 1 <input type="checkbox"/> Wrapped Nucleic<br>Wrapped Aminos   | The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."  |   |
| 2 <input type="checkbox"/> Invalid Line Length   | The rules require that a line not exceed 72 characters in length. This includes white spaces.   |   |
| 3 <input type="checkbox"/> Misaligned Amino<br>Numbering   | The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.   |   |
| 4 <input type="checkbox"/> Non-ASCII   | The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.  |   |
| 5 <input type="checkbox"/> Variable Length   | Sequence(s) <input type="checkbox"/> contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.   |   |
| 6 <input type="checkbox"/> PatentIn 2.0<br>"bug"   | A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) <input type="checkbox"/> . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.   |   |
| 7 <input type="checkbox"/> Skipped Sequences<br>(OLD RULES)  | Sequence(s) <input type="checkbox"/> missing. If intentional, please insert the following lines for each skipped sequence:<br>(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)<br>(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)<br>(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)<br>This sequence is intentionally skipped<br><br>Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences. |   |
| 8 <input type="checkbox"/> Skipped Sequences<br>(NEW RULES)  | Sequence(s) <input type="checkbox"/> missing. If intentional, please insert the following lines for each skipped sequence.<br><210> sequence id number<br><400> sequence id number<br>000   |   |
| 9 <input type="checkbox"/> Use of n's or Xaa's<br>(NEW RULES)  | Use of n's and/or Xaa's have been detected in the Sequence Listing.<br>Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.<br>In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.  |   |
| 10 <input type="checkbox"/> Invalid <213><br>Response  | Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence   |   |
| 11 <input type="checkbox"/> Use of <220>   | Sequence(s) <input type="checkbox"/> missing the <220> "Feature" and associated numeric identifiers and responses.<br>Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.<br>(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)  |   |
| 12 <input type="checkbox"/> PatentIn 2.0<br>"bug"  | Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.   |   |
| 13 <input type="checkbox"/> Misuse of n  | n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.   |   |

OIPE

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/910,358

DATE: 08/01/2001  
TIME: 11:05:11

Input Set : A:\PTO\_VSK.txt  
Output Set: N:\CRF3\08012001\I910358.raw

pp. 15  
Does Not Comply  
Corrected Diskette Needed

3 <110> APPLICANT: Shi, Wenyuan  
4 Anderson, Maxwell  
5 Morrison, Sherie  
6 Trinh, Kham  
7 Wims, Letitia  
8 Chen, Li  
10 <120> TITLE OF INVENTION: Fusion Proteins for Targeted Delivery of Antimicrobial Peptides  
12 <130> FILE REFERENCE: 22851-033  
14 <140> CURRENT APPLICATION NUMBER: US/09/910,358  
C--> 14 <141> CURRENT FILING DATE: 2001-07-19  
14 <150> PRIOR APPLICATION NUMBER: US 09/378,577  
15 <151> PRIOR FILING DATE: 1999-08-20  
17 <160> NUMBER OF SEQ ID NOS: 15  
19 <170> SOFTWARE: PatentIn version 3.1  
21 <210> SEQ ID NO: 1  
22 <211> LENGTH: 563  
23 <212> TYPE: DNA  
24 <213> ORGANISM: Synthetic-Murine  
26 <220> FEATURE:  
27 <221> NAME/KEY: CDS  
28 <222> LOCATION: (69)..(140)  
29 <223> OTHER INFORMATION: Histatin 5  
32 <220> FEATURE:  
33 <221> NAME/KEY: CDS  
34 <222> LOCATION: (141)..(188)  
35 <223> OTHER INFORMATION: Linker Peptide  
38 <220> FEATURE:  
39 <221> NAME/KEY: CDS  
40 <222> LOCATION: (189)..(563)  
41 <223> OTHER INFORMATION: VH of SWLA3  
44 <400> SEQUENCE: 1  
45 ggatatccac catggacttc gggttgcgt tggtttccct tgccttact ttaaaagggtg 60  
47 tccagtgt gat agc cac gct aag cgg cac cac gga tat aag cgg aag ttc 110  
48 Asp Ser His Ala Lys Arg His His Gly Tyr Lys Arg Lys Phe  
49 1 5 10  
51 cac gag aag cac cac tcg cac aga gga tac tct ggt ggc ggt ggc tcg 158  
52 His Glu Lys His His Ser His Arg Gly Tyr Ser Gly Gly Gly Ser  
53 15 20 25 30  
55 ggc gga ggt ggg tcg ggt ggc gga tcc gac gtg aag ctt gtg gag 206  
56 Gly Gly Gly Ser Gly Gly Gly Ser Asp Val Lys Leu Val Glu  
57 35 40 45  
59 tct ggg gga ggc tta gtg aac cct gga ggg tcc ctg aaa ctc tcc tgt 254  
60 Ser Gly Gly Leu Val Asn Pro Gly Gly Ser Leu Lys Leu Ser Cys  
61 50 55 60  
63 gca gcc tct gga ttc act ttc agt agc tat acc atg tct tgg gtt cgc 302  
64 Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Thr Met Ser Trp Val Arg  
65 65 70 75

*invalid - see item 10 on Error Summary sheet*

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Input Set : A:\PTO\_VSK.txt

Output Set: N:\CRF3\08012001\I910358.raw

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|---|-----|
| 67 cag act ccg gag aag agg ctg gag tgg gtc gca tcc att agt agt ggt  | 350 |
| 68 Gln Thr Pro Glu Lys Arg Leu Glu Trp Val Ala Ser Ile Ser Ser Gly  |     |
| 69 80 85 90   |     |
| 71 ggt act tac acc tac tat cca gac agt gtg aag ggc cga ttc acc atc  | 398 |
| 72 Gly Thr Tyr Thr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile      |     |
| 73 95 100 105 110   |     |
| 75 tcc aga gac aat gcc aag aac acc ctg tac ctg caa atg acc agt ctg  | 446 |
| 76 Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Thr Ser Leu  |     |
| 77 115 120 125  |     |
| 79 aag tct gag gac aca gcc atg tat tac tgt tca aga gat gac ggc tcc  | 494 |
| 80 Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys Ser Arg Asp Asp Gly Ser  |     |
| 81 130 135 140  |     |
| 83 tac ggc tcc tat tac tat gct atg gac tac tgg ggt caa gga acc tca  | 542 |
| 84 Tyr Gly Ser Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser      |     |
| 85 145 150 155  |     |
| 87 gtc acc gtc tct tca gct agc                                      | 563 |
| 88 Val Thr Val Ser Ser Ala Ser                                      |     |
| 89 160 165  |     |
| 92 <210> SEQ ID NO: 2   |     |
| 93 <211> LENGTH: 24   |     |
| 94 <212> TYPE: PRT  |     |
| 95 <213> ORGANISM: Synthetic-Murine                                 |     |
| 97 <400> SEQUENCE: 2  |     |
| 99 Asp Ser His Ala Lys Arg His His Gly Tyr Lys Arg Lys Phe His Glu  |     |
| 100 1 5 10 15   |     |
| 103 Lys His His Ser His Arg Gly Tyr                                 |     |
| 104 20  |     |
| 107 <210> SEQ ID NO: 3  |     |
| 108 <211> LENGTH: 16  |     |
| 109 <212> TYPE: PRT   |     |
| 110 <213> ORGANISM: Synthetic-Murine                                |     |
| 112 <400> SEQUENCE: 3   |     |
| 114 Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser             |     |
| 115 1 5 10 15   |     |
| 118 <210> SEQ ID NO: 4  |     |
| 119 <211> LENGTH: 125   |     |
| 120 <212> TYPE: PRT   |     |
| 121 <213> ORGANISM: Synthetic-Murine                                |     |
| 123 <400> SEQUENCE: 4   |     |
| 125 Asp Val Lys Leu Val Glu Ser Gly Gly Leu Val Asn Pro Gly Gly     |     |
| 126 1 5 10 15   |     |
| 129 Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr |     |
| 130 20 25 30  |     |
| 133 Thr Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val |     |
| 134 35 40 45  |     |
| 137 Ala Ser Ile Ser Ser Gly Gly Thr Tyr Thr Tyr Tyr Pro Asp Ser Val |     |
| 138 50 55 60  |     |
| 141 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr |     |
| 142 65 70 75 80   |     |

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TIME: 11:05:11

Input Set : A:\PTO\_VSK.txt

Output Set: N:\CRF3\08012001\I910358.raw

145 Leu Gln Met Thr Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys  
 146 85 90 95  
 149 Ser Arg Asp Asp Gly Ser Tyr Gly Ser Tyr Tyr Tyr Ala Met Asp Tyr  
 150 100 105 110  
 153 Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Ser  
 154 115 120 125  
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 158 <211> LENGTH: 533  
 159 <212> TYPE: DNA  
 160 <213> ORGANISM: Synthetic-Murine  
 162 <220> FEATURE:  
 163 <221> NAME/KEY: CDS  
 164 <222> LOCATION: (69)..(110)  
 165 <223> OTHER INFORMATION: Dhvar 1  
 168 <220> FEATURE:  
 169 <221> NAME/KEY: CDS  
 170 <222> LOCATION: (111)..(158)  
 171 <223> OTHER INFORMATION: Linker Peptide  
 174 <220> FEATURE:  
 175 <221> NAME/KEY: CDS  
 176 <222> LOCATION: (159)..(533)  
 177 <223> OTHER INFORMATION: VH of SWLA3  
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 181 ggatatccac catggacttc gggttgagct tggttttcct tgccttact taaaagggtg 60  
 183 tccagtgt aag cgg ctg ttt aag gag ctc aag ttc agc ctg cgc aag tac 110  
 184 Lys Arg Leu Phe Lys Glu Leu Lys Phe Ser Leu Arg Lys Tyr  
 185 1 5 10  
 187 tct ggt ggc ggt ggc tcg ggc gga ggt ggg tcg ggt ggc gga tcc 158  
 188 Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser  
 189 15 20 25 30  
 191 gac gtg aag ctt gtg gag tct ggg gga ggc tta gtg aac cct gga ggg 206  
 192 Asp Val Lys Leu Val Glu Ser Gly Gly Leu Val Asn Pro Gly Gly  
 193 35 40 45  
 195 tcc ctg aaa ctc tcc tgt gca gcc tct gga ttc act ttc agt agc tat 254  
 196 Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 197 50 55 60  
 199 acc atg tct tgg gtt cgc cag act ccg gag aag agg ctg gag tgg gtc 302  
 200 Thr Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val  
 201 65 70 75  
 203 gca tcc att agt agt ggt act tac acc tac tat cca gac agt gtg 350  
 204 Ala Ser Ile Ser Ser Gly Gly Thr Tyr Thr Tyr Pro Asp Ser Val  
 205 80 85 90  
 207 aag ggc cga ttc acc atc tcc aga gac aat gcc aag aac acc ctg tac 398  
 208 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
 209 95 100 105 110  
 211 ctg caa atg acc agt ctg aag tct gag gac aca gcc atg tat tac tgt 446  
 212 Leu Gln Met Thr Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys  
 213 115 120 125  
 215 tca aga gat gac ggc tcc tac ggc tcc tat tac tat gct atg gac tac 494

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TIME: 11:05:11

Input Set : A:\PTO\_VSK.txt

Output Set: N:\CRF3\08012001\I910358.raw

216 Ser Arg Asp Asp Gly Ser Tyr Gly Ser Tyr Tyr Tyr Ala Met Asp Tyr  
 217 130 135 140  
 219 tgg ggt caa gga acc tca gtc acc gtc tct tca gct agc 533  
 220 Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Ser  
 221 145 150 155  
 224 <210> SEQ ID NO: 6  
 225 <211> LENGTH: 14  
 226 <212> TYPE: PRT  
 227 <213> ORGANISM: Synthetic-Murine  
 229 <400> SEQUENCE: 6  
 231 Lys Arg Leu Phe Lys Glu Leu Lys Phe Ser Leu Arg Lys Tyr  
 232 1 5 10  
 235 <210> SEQ ID NO: 7  
 236 <211> LENGTH: 16  
 237 <212> TYPE: PRT  
 238 <213> ORGANISM: Synthetic-Murine  
 240 <400> SEQUENCE: 7  
 242 Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser  
 243 1 5 10 15  
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 247 <211> LENGTH: 125  
 248 <212> TYPE: PRT  
 249 <213> ORGANISM: Synthetic-Murine  
 251 <400> SEQUENCE: 8  
 253 Asp Val Lys Leu Val Glu Ser Gly Gly Leu Val Asn Pro Gly Gly  
 254 1 5 10 15  
 257 Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 258 20 25 30  
 261 Thr Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val  
 262 35 40 45  
 265 Ala Ser Ile Ser Ser Gly Gly Thr Tyr Thr Tyr Tyr Pro Asp Ser Val  
 266 50 55 60  
 269 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
 270 65 70 75 80  
 273 Leu Gln Met Thr Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys  
 274 85 90 95  
 277 Ser Arg Asp Asp Gly Ser Tyr Gly Ser Tyr Tyr Tyr Ala Met Asp Tyr  
 278 100 105 110  
 281 Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Ser  
 282 115 120 125  
 285 <210> SEQ ID NO: 9  
 286 <211> LENGTH: 89  
 287 <212> TYPE: DNA  
 288 <213> ORGANISM: Synthetic  
 290 <400> SEQUENCE: 9  
 291 caccactcgc acagaggata ctctggtggc ggtggctcg ggagggtgg gtcgggtggc 60  
 293 ggcggatccg acgtgaagct tgtggagtc 89  
 296 <210> SEQ ID NO: 10  
 297 <211> LENGTH: 84

## RAW SEQUENCE LISTING

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Input Set : A:\PTO\_VSK.txt

Output Set: N:\CRF3\08012001\I910358.raw

298 <212> TYPE: DNA  
299 <213> ORGANISM: Synthetic  
301 <400> SEQUENCE: 10  
302 ggtgtccagt gtgatagcca cgctaagcgg caccacggat ataagcggaa gttccacgag 60  
304 aaggcaccat cgacagagg atac 84  
307 <210> SEQ ID NO: 11  
308 <211> LENGTH: 74  
309 <212> TYPE: DNA  
310 <213> ORGANISM: Synthetic  
312 <400> SEQUENCE: 11  
313 gatatccacc atggacttcg gggtgagctt ggtttcctt gtccttactt taaaagggtgt 60  
315 ccagtgtat agcc 74  
318 <210> SEQ ID NO: 12  
319 <211> LENGTH: 87  
320 <212> TYPE: DNA  
321 <213> ORGANISM: Synthetic  
323 <400> SEQUENCE: 12  
324 gttcagcctg cgcaagtact ctggtggcgg tggctcgggc ggaggtgggt cgggtggcgg 60  
326 cggatccgac gtgaagcttg tggagtc 87  
329 <210> SEQ ID NO: 13  
330 <211> LENGTH: 69  
331 <212> TYPE: DNA  
332 <213> ORGANISM: Synthetic  
334 <400> SEQUENCE: 13  
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337 cgcaagtac 69  
340 <210> SEQ ID NO: 14  
341 <211> LENGTH: 65  
342 <212> TYPE: DNA  
343 <213> ORGANISM: Synthetic  
345 <400> SEQUENCE: 14  
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348 tccag 65  
351 <210> SEQ ID NO: 15  
352 <211> LENGTH: 39  
353 <212> TYPE: DNA  
354 <213> ORGANISM: Synthetic  
356 <400> SEQUENCE: 15  
357 tgggtcgacw gatggggstg ttgtgctagc tgaggagac 39

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/910,358

DATE: 08/01/2001

TIME: 11:05:12

Input Set : A:\PTO\_VSK.txt

Output Set: N:\CRF3\08012001\I910358.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date